

## Abstract of Disclosure

A collision severity estimation system (10) for an automotive vehicle (12) is provided. The system (10) includes one or more object detection sensors (22) detecting an object and generating a first object detection signal. A controller (20) is electrically coupled to the object detection sensors (22) and determines motion properties of the object relative to the vehicle (12) and generates an object motion signal in response to the first object detection signal. The controller (20) determines potential collision severity between the vehicle (12) and the object in response to the object motion signal and generates a collision severity signal. Methods of determining motion properties of the object as well as determining potential collision severity between the vehicle (12) and the object are also provided.